Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2018-80-RC2, 2018 © Author(s) 2018. This work is distributed under the Creative Commons Attribution 4.0 License.



Interactive comment on "Brief communication: Strengthening coherence between climate change adaptation and disaster risk reduction through policies, methods and practices in Europe" by Jaroslav Mysiak et al.

Anonymous Referee #2

Received and published: 29 May 2018

The authors present a brief communication related to the "coherence between CC adaptation and DRR through policies, methods and practices in Europe" based on the recently published EEA report (European Environment Agency, 2017).

While the overall aim of this brief communication is not doubted, it remains a bit open to me (1) what the aim of this manuscript should be apart from advertising the original EEA report, and (2) to what extent the European research landscape is comprehensively mirrored by the authors. As such, most of the cited references are EC and EEA reports and policy briefs, in contrast, sources other than these are widely neglected

C.

(such as e.g., OECD). As such, a brief communication in NHESS could take a wider or more focused point of view than the present one; at the moment the manuscript reads more in the way of an extended abstract of the original report. Consequently, lots of the statements made are not underpinned by references, and if they repeatedly refer to EEA reports again.

The title should in my opinion focus a bit more on the content, which is not "Europe" but the Netherlands, Spain, France, the UK and Switzerland (why this selection?). As such, the manuscript shows good examples (or best practice) of CC adaptation and DRR strategies in European countries, but the focus on some countries means in turn that other examples and good practices are missing. Moreover, the examples shown in Table 1 are also a result of the respective legal regulations in the countries reported. To give an example, the multi-level risk governance reported from Switzerland is a result of the constitution of the Swiss Federation, and not as such the result of specific arrangements in DRR or CC adaptation, and cannot be similarly put to other governmental contexts such as the French one, where decisions are made by definition in a more centralized manner.

In the Introduction section the authors refer to initiatives other than those of EEA, such as those from EC JRC, ETC/CCA, DG Climate Action etc. On the international level, the UN Office for DRR and the Sendai Framework are particularly mentioned. Here, it would be good to also include some challenges behind such European and international actions, as recently shown by Wymann von Dach (2017) or Zimmermann and Keiler (2015) with respect to CC adaptation and DRR for European mountain regions, or OECD (2017). Similarly, it would be nice to see some definitions here (how do the authors of the EEA study define resilience, vulnerability, and risk?). Moreover, some of the facts given are more platitudes than proven scientific facts – at least in the way they are presented here. To give another example, the authors state that "Along with climate change, growing population and wealth, developments in hazard-prone areas, and the deteriorated status of natural ecosystems [...] increasing exposure and vul-

nerability" can be observed. This is a tricky statement, and has recently been debated (by European scholars) in the scientific literature. The manuscript would surely gain in content and rationale power if we could see some examples here – there are lots of recent works from the UK, the Netherlands or Switzerland and Austria around (such as, for example, Jongman et al. (2014) or Fuchs et al. (2015), both even published in the target journal). This would additionally help to close the still existing gap between policy advice and sciences without narrowing the aims of the original report.

Similarly, section 2 seems to be a bit too narrowly focused on the EC and EEA contexts (page 3, lines 9-21). Consequently, the text is missing some concrete details or particular arguments; sentences such as the "levels of vulnerability, which include sensitivity or susceptibility to harm and lack of capacity to cope and adapt, are changing as our societies are transformed in terms of demography, wealth, cohesion and use of technology. Notwithstanding the importance of the quality-assured, systematically collected and thorough records on impacts of natural hazards, the loss data systems in Europe are fragmented and inconsistent. Empirical and evidence-based risk analysis and assessment are a vital part of CCA and DRR efforts" are a good example, also here there have been made (not only recently) some efforts from the scientific side, spanning from publications such as those of Barredo (2007, 2009, 2010) or Paprotny et al. (2018) on the European scale to national reports from different European countries, all of which are worth being noted. Alternatively, the authors should clearly state at the very beginning that the focus of this manuscript is a selection of European countries and initiatives, with an emphasis on EEA activities.

Finally, section 3 reads like a document of political decision makers with (from a scientific perspective) lots of "common sense" statements, which is of course ok in a framework like the one of the original study, but it would not be amiss to be more specific in the "brief communication" to be published in a scientific journal such as NHESS.

The topic itself is definitely worth being published in NHESS, and I would like to encourage the authors to undertake some revisions in the directions outlined above. As

C3

a result, I kindly would like to suggest to revise this piece of work in order to better show the relation to existing scientific works recently published (also in NHESS), and consequently to lessen the focus on EC and EEA initiatives (this can be gathered easily by the interested reader through the original version of the EEA report (European Environment Agency, 2017)).

References mentioned

Barredo, J.: Major flood disasters in Europe: 1950-2005, Natural Hazards, 42, 125-148, 2007.

Barredo, J.: Normalised flood losses in Europe: 1970-2006, Natural Hazards and Earth System Sciences. 9. 91-104, 2009.

Barredo, J.: No upward trend in normalised windstorm losses in Europe: 1970–2008, Natural Hazards and Earth System Sciences, 10, 97-104, 2010.

European Environment Agency: Climate change adaptation and disaster risk reduction in Europe, EEA Report 15/2017, edited by European Environment Agency, Copenhagen, 172 pp., 2017.

Fuchs, S., Keiler, M., and Zischg, A.: A spatiotemporal multi-hazard exposure assessment based on property data, Natural Hazards and Earth System Sciences, 15, 2127-2142, 2015.

Jongman, B., Koks, E. E., Husby, T. G., and Ward, P. J.: Increasing flood exposure in the Netherlands: implications for risk financing, Natural Hazards and Earth System Sciences, 14, 1245-1255, 2014.

OECD: Boosting disaster prevention through innovative risk governance: Insights from Austria, France and Switzerland, OECD Publishing, Paris, 250 pp., 2017.

Paprotny, D., Morales-Nápoles, O., and Jonkman, S. N.: HANZE: a pan-European database of exposure to natural hazards and damaging historical floods since 1870,

Earth System Science Data, 10, 565-581, 2018.

Wymann von Dach, S., Bachmann, F., Alcántara-Ayala, I., Fuchs, S., Keiler, M., Mishra, A., and Sötz, E.: Safer lives and livelihoods in mountains: Making the Sendai Framework for Disaster Risk Reduction work for sustainable mountain development, Centre for Development and Environment (CDE), University of Bern, with Bern Open Publishing (BOP), Bern, 78 pp., 2017.

Zimmermann, M., and Keiler, M.: International frameworks for disaster risk reduction: Useful guidance for sustainable mountain development?, Mountain Research and Development, 35, 195-202, 2015.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2018-80, 2018.